

REMARKS

Claims 1-2, 4-11 and 13-21 are pending.

102(b) Rejections

The instant Office Action states that Claims 1-2, 4-11 and 13-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kimmel et al., "A Variational Framework for Retinex" ("Kimmel;" XP-002243109). The Applicants have reviewed the cited reference and respectfully submit that the present invention as recited in Claims 1-2, 4-11 and 13-21 is not anticipated nor rendered obvious by Kimmel.

The instant Office Action cites pages 10-11 (specifically, lines 1-4 on page 11) as teaching the claimed embodiments of the present invention. Applicants respectfully note that the equation recited on page 11 at line 3 of Kimmel is:

$$F_k[l] = \int_{\Omega_k} (|\nabla l|^2 + \alpha(l - s_k)^2 + \beta|\nabla(l - s_k)|^2) dx dy.$$

However, referring to Claims 1 or 4, 10 or 13, and 19 or 21, the equation recited by the claims of the present invention is:

$$F[l] = \int_{\Omega} (w_1(\nabla s)|\nabla l|^2 + \alpha(l - s) + \beta w_2(\nabla s)|\nabla l - \nabla s|^2) dx dy,$$

where w_1 and w_2 are weight functions.

Applicants respectfully submit that the equation recited by the claims of the present invention is quite different from the equation recited in Kimmel and relied on by the Examiner in the instant Office Action. For example, the equation recited by the claims of the present invention includes the terms $w_1(\nabla s)$, $\alpha(l - s)$, and $\beta w_2(\nabla s)$, while those terms are not

included in, or even suggested by, the equation relied on by the Examiner in the instant Office Action, nor are those terms shown or suggested by Kimmel taken in its entirety.

As such, Applicants respectfully submit that Kimmel does not show or suggest a method comprising “calculating a gradient of a penalty functional, wherein the penalty functional includes a weight function,” in particular a weight function “that obtains values close to the logarithm of the illumination of the image over most parts of the image” as recited in independent Claim 1 (emphasis added). Claims 2 and 4-9 depend on Claim 1 and recite additional limitations.

Also, Applicants respectfully submit that Kimmel does not show or suggest a system comprising “an iterative algorithm that processes each of the one or more resolution layers, wherein the iterative algorithm, for each of one or more iterations, calculates a gradient of a penalty functional, wherein the penalty functional includes a weight function,” in particular a weight function “that obtains values close to the logarithm of L over most parts of the image” as recited in independent Claim 10 (emphasis added). Claims 11 and 13-18 depend on Claim 10 and recite additional limitations.

Furthermore, Applicants respectfully submit that Kimmel does not show or suggest a method comprising “processing the resolution layers using an iterative algorithm, wherein the iterative algorithm, for each of one or more iterations, calculates a gradient of a penalty functional, wherein the penalty functional includes a weight function,” in particular a weight function “that obtains values close to the logarithm of L over most parts of the image” as recited in independent Claim 19 (emphasis added). Claims 20-21 depend on Claim 19 and recite additional limitations.

In summary, Applicants respectfully submit that the present claimed invention, as recited in independent Claims 1, 10 and 19, is not shown or suggested by Kimmel. Accordingly, Applicants respectfully submit that the basis for rejecting Claims 1, 10 and 19 under 35 U.S.C. § 102(b) is traversed, and that these claims are in condition for allowance. As such, Applicant respectfully submits that the basis for rejecting Claims 2, 4-9, 11, 13-18 and 20-21 under 35 U.S.C. § 102(b) is also traversed, as these claims are dependent on allowable base claims and contain additional limitations that are patentably distinguishable over Kimmel.

Furthermore, in one embodiment, the penalty functional recited in independent Claims 1, 10 and 19 is that recited in Claims 4, 13 and 21 dependent on Claims 1, 10 and 19, respectively. As presented above, Applicants respectfully submit that the equation recited in Claims 4, 13 and 21 is not shown or suggested by Kimmel. Accordingly, Applicants respectfully submit that the limitations of Claims 4, 13 and 21 are not shown or suggested by Kimmel. For this additional reason, Applicants respectfully submit that the basis for rejecting Claims 4, 13 and 21 under 35 U.S.C. § 102(b) is traversed.

Conclusions

In light of the above remarks, Applicants respectfully request reconsideration of the rejected claims.


Based on the arguments presented above, Applicants respectfully assert that Claims 1, 2, 4-11 and 13-21 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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